

CLAIMS

What is claimed is:

- 5 1. A method for operating a proxy disposed between a user and a document accessible to said user over a computer network, in order to facilitate re-use of objects within said document from a cache without validating said objects upon re-use, comprising:
 - 10 (a) obtaining an electronic document:
 - (i) identifiable by a network address of said document;
 - (ii) including references to one or more embedded objects;
 - (iii) each said object being identifiable by a preexisting network address therefor;
 - 15 (b) for at least one of said embedded objects, facilitating storage and re-use thereof from a cache accessible to said user, without necessarily requiring validation of said object upon said re-use, by:
 - (i) specifying a new network address uniquely identifying said object; and
 - (ii) specifying cacheability information for said object;
 - 20 (c) modifying said document by replacing said preexisting address for said object with said new network address;
 - (d) transmitting said modified document to said user;
 - (e) receiving a user request for at least one of said embedded objects; and
 - 25 (f) transmitting said requested object and said cacheability information in response to said request.
2. The method of claim 1 occurring automatically in response to said user request for said document.
- 30 3. The method of claim 1 where said proxy is implemented as an intermediary server located between a computer of said user and a server of said document.

4. The method of claim 1 where said new network address has at least a portion in common with said preexisting network address.
5. The method of claim 1 where said cacheability information includes a long expiry date.
6. The method of claim 1 where said cacheability information includes a long maxage parameter.
7. The method of claim 1 where said cacheability information includes a relatively recent last modified date.
8. The method of claim 1 where said cacheability information includes how long said object can be cached without revalidation.
9. The method of claim 1 where said proxy is co-located at a server of said document.
10. The method of claim 9 where said document was dynamically generated at said server.
11. The method of claim 10 where said dynamic generation includes executing a programmatic description of said document in conjunction with data for at least one variable in said programmatic description.
12. The method of claim 1 further comprising storing said object at said proxy for later use.
13. The method of claim 12 further comprising validating said stored object against a server thereof.
14. The method of claim 13 further comprising refreshing said object using condensation techniques.

15. The method of claim 1, where said step (f) includes:
 - (i) determining said preexisting network address for said object;
 - (ii) fetching said object from said preexisting network address;
 - (iii) replacing said cacheability information in said object; and
 - (iv) forwarding said object in response to said request.
16. The method of claim 1, where said user request in said step (e) comes from said user of said step (d).
17. The method of claim 1, where said user request in said step (e) comes from a user different than said user of said step (d).
18. A computer-readable medium comprising program logic instructions for operating a proxy disposed between a user and a document accessible to said user over a computer network, in order to facilitate re-use of objects within said document from a cache without validating said objects upon re-use, said instructions when executed:
 - (a) obtaining an electronic document:
 - (i) identifiable by a network address of said document;
 - (ii) including references to one or more embedded objects;
 - (iii) each said object being identifiable by a preexisting network address therefor;
 - (b) for at least one of said embedded objects, facilitating storage and re-use thereof from a cache accessible to said user, without necessarily requiring validation of said object upon said re-use, by:
 - (i) specifying a new network address uniquely identifying said object; and
 - (ii) specifying cacheability information for said object;
 - (c) modifying said document by replacing said preexisting address for said object with said new network address;
 - (d) transmitting said modified document to said user;
 - (e) receiving a user request for at least one of said embedded objects; and

- (f) transmitting said requested object and said cacheability information in response to said user request.

19. The method of claim 18 occurring automatically in response to said user's request for said document.

20. The method of claim 18 where said proxy is implemented as an intermediary server located between a computer of said user and a server of said document.

21. The method of claim 18 where said new network address has at least a portion in common with said preexisting network address.

22. A device configured to facilitate re-use of objects within said document from a cache without validating said objects upon re-use, said device comprising:

- (a) means for obtaining an electronic document:
 - (i) identifiable by a network address of said document;
 - (ii) including references to one or more embedded objects;
 - (iii) each said object being identifiable by a preexisting network address therefor;
- (b) means for facilitating storage and re-use of at least one of said embedded objects, from a cache accessible to said user, without necessarily requiring validation of said object upon said re-use, by:
 - (i) specifying a new network address uniquely identifying said object; and
 - (ii) specifying cacheability information for said object;
- (c) means for modifying said document by replacing said preexisting address for said object with said new network address;
- (d) means for transmitting said modified document to said user;
- (e) means for receiving a user request for at least one of said embedded objects; and
- (f) means for transmitting said requested object and said cacheability information in response to said request.

23. The device of claim 22 occurring automatically in response to said user's request for said document.
24. The proxy of claim 22 where said proxy is implemented as an intermediary server located between a computer of said user and a server of said document.
25. The device of claim 22 where said new network address has at least a portion in common with said preexisting network address.

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